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| <p>Korshak, V. V., Gribova, I. A. and others. SYNTHESIS AND POLYMERIZATION OF ARYL PHOSPHONITRILES AND ALKYL PHOSPHONITRILES. [1961] 9p. 7 refs. Order from OTS or SLA \$1.10 61-19740 62-16273</p> <p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. 3, p. 377-385. Abstract trans. available from LC or SLA as 60-23846. AID-60-16, 19 July 60, 1p.</p> <p>DESCRIPTORS: *Phosphonitrides, Synthesis, Polymerization, *Polymers, Phosphorus compounds, Phenyl radicals, Alkyl radicals.</p> <p>For abstract see Technical Translations 4: 657, 1960.</p> <p>(Chemistry--Organic, TT, v. 6, no. 1)</p> | <p>61-19740 I. Korshak, V. V. II. Gribova, I. A. III. Translations, New York 101852</p> <p>Office of Technical Services</p> |
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Investigation of the Possibility of Preparing
Unsaturated Compounds of Cellulose by the Chugaev
Reaction, by A. I. Polyakov.

RUSSIAN, per, Vysok Soedin, Vol II, No 3, 1960,
pp 386-389.

NLL(LOAN)Ref: 5828.4 1963 (5440)

Sci-Chem
April 64

The Synthesis and Basic Properties of
Plyacrlate Esters of Different Degrees
of Plymerization, by A. A. Berlin,
T. Ya. Kefeli, Yu. M. Filippovskaya,
Yu. M. Silvergin.
RUSSIAN, per, Vysokomolekulyarnye
Soedineniya, Vol 2, No 3, 1960, PP. 411-
16
NTC 69-10641-07C

Sci-Chem

Kozlov, P. V. and others.

STUDIES IN THE SPHERULITE STRUCTURE OF POLYMERS. III. A STUDY OF THE MICROSPHERULITE STRUCTURE OF POLYMERS BY ETCHING. [1960] 12p. 11 refs.

Order from SLA m\$2.40, p\$3.30 60-18427

Trans. of [Vysokomolekulyarnye Soedineniya] (USSR) 1960 [v. 2] no. 3, p. 421-426.

On the basis of the etching method used there were shown optical and electron microscopic studies of structures of microspherulites occurring in films of polyethylene sebacate obtained from solution. The separate coexistence in the microspherulite of polyethylene sebacate of crystalline and amorphous phases was established. The crystalline phase of the polymer is constituted of a helical-ribbon shaped packet of polymer chains composing the structural elements of the microspherulites themselves. The amorphous phase of the polymer consists of globular shapes not (Chemistry--Organic, TT, v. 5, no. 3) (over)

60-18427

1. Polymers--Crystal structure
2. Title: Spherulite structure

I. Kozlov, P. V.

II. Title: Study...

143,041

Office of Technical Services

A Study in the Field of Organophosphorus Polymers.
IX. Polycondensation Reaction of Phosphonic Acid
Dichlorides With Dihydroxy Compounds, by V. V.
Korshak, et al.

RUSSIAN, per, Vysokomolekulyarnye Soyedineniya,
vol. II, 1960, pp 427-432.

ARG 50041R
AT 1/17/88
138/282

Sci - Chem

11 009

US-14

KISHCH L., DOBE Ya.

Graft copolymerization of methyl methacrylate and styrene
on gelatin induced by ionizing radiation

Vysokomolekulyarnye Soedineniya, 2, No. 3, 464-465 (1960)

ATS-91M41R. \$ 2.10 - English

E u r a t o m

A T / E

Levoglucosan Polyethers. I. Polymerization of Leroglucosan
and its Ethers, by V. V. Korshak.

RUSSIAN, per, Vysokomolckulyarnye Soedineniya, Vol 3, No 3
1961, pp 477-485.

*NTIS TT 71-51003

July 71

Interfacial Polycondensation of Diamine Salts
and Dicarboxylic Acid Chlorides, by
L. B. Sokolov, T. V. Kudim, 4 pp.

RUSSIAN, per, Vysokomolekulyarnyye
Soyed, Vol II, No 4, 1960, pp 481-484.

ATS-24M42R
AT&T J-2476

Sci
Vol IV, No 7
Apr 62

192, 654

HEAT RESISTANCE OF CHELATE (METAL-COORDINATION) POLYMERS. 7 Nov 60. 3p. AID rept. 60-83, AD-246 712.

Order from LC or SLA m\$1.80, ph\$1.80 61-13991

Abstract trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. 4, p. 492-507 and 526-528, no. 5, p. 662-672 and 701-792.

Complete translations are available from ATS:

Pt. 1, \$9.50 ea ATS-45M42R [1960] 7p.
Pt. 2, \$12.50 ea ATS-44M42R [1960] 10p.
Pt. 3, \$13.95 ea ATS-13M43R [1960] 10p.
Pt. 4, \$6.00 ea ATS-32M42R [1960] 4p.
Pt. 5, \$3.00 ea ATS-14M43R [1960] 2p.

PP 498-507-ATS/RJ-2424

Content: 1. Study in the Field of Coordination of Polymers.
II. On Some Metal-Containing Polymers of Quinizarin, by V. V. Korshak and others
(Chemistry--Organic, TT, v. 5, no. 4) (over)

61-13991

1. Chelate compounds--Thermal properties
2. Title: Coordination polymers
3. AID-60-83
4. Air Information Div., Washington, D. C.
5. Title: Investigation of Coordination-chain Polymers, Pts. 2-4.
6. AD-246 712

143,339

PP 498-507-ATS/RJ-2424

Office of Technical Services

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| <p>2. Study in the Field of Coordination Polymers III. On the Coordination of Polymers Based on Bis-(8-hydroxyquinolyl)-methane, by V. V. Kor- shak and others</p> <p>3. Study in the Field of Coordination Polymers IV. Synthesis of Polymers Based on Aromatic Bis-(β-diketones) with Metals, by V. V. Kornshak and others</p> <p>4. Synthesis of Polymers Based on β-chlorovinyl Ketone by A. N. Neameyanov and others</p> <p>5. Synthesis of Chelate Polymers, by N. A. Glukhov and others</p> | PB- | 61-13991 |
|--|-----|----------|

Investigation of Coordination Polymers III.
Coordination Polymers of BIS (8-HY-Droxyguinolyl)
Methane, by V. V. Korshak, S. V. Vinogradova,
T. M. Babchinitser.

RUSSIAN, per, Vysokomolekulyarnye Soyed,
Vol II, No 4, 1960, pp 498-507.

AT&T-44442R
AT&T-RJ-242A

Sci
Vol IV, No 7
Apr 62

192, 641

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| <p>Slovokhotova, N. A., Sadovskaya, G. K., and Kargin, V. A. INFLUENCE OF FAST ELECTRONS ON THE STRUCTURE OF POLYETHYLENETEREPHTHALATE. [1961] (2 figs. omitted) 12 refs. Order from OTS or SLA \$1.10 Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 4, p. 515-520.</p> <p>DESCRIPTORS: *Electrons, Crystal structure, *Polymerization, *Ethylenes, *Phthalates, Isomeric transitions, Ionization, *Radiation effects, Phenyl radicals, Radiochemistry.</p> <p>Polyethyleneterephthalate on irradiation with fast electrons goes over from the crystalline to the amorphous state. This amorphisation is associated with the isomerization of certain portions of the polymer (Nuclear Physics and Nuclear Chemistry, TT, v. 8, no. 6) (over)</p> | <p>62-10980</p> <p>I. Slovokhotova, N. A. II. Sadovskaya, G. K. III. Kargin, V. A.</p> <p>Office of Technical Services</p> |
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Andrianov, K. A., Gribanova, O. I., and others.
STUDY OF THE POLYCONDENSATION REACTION
OF POLYETHYL-ENETEREPHTHALATE AND
POLYORGANOETHOXYSILOXANES. 7 Nov 60, 2p.
AD rept. 60-82; AD-246 711.
Order from LC or SLA mi\$1.80, ph\$1.80 61-13990

Abstract trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. 4, p. 321-323.

An organosilicon polymer with active ethoxy groups was synthesized by heterocondensation of methyl phenyl ethoxymethane chloride with phenyl triethoxymethane in a molar ratio of 1:0.5. The molecular weight of the polymer was 600-800, and the content of the ethoxy groups was 22.50%. The structure was assumed to be linear, with ethoxy groups situated both in the ends of the chain and as occasional side substituents. These active groups were then brought in contact with active hydroxyl end groups of polyethyl-(Materials-Paints, TT, v. 5, no. 4) (over)

61-13990

1. Silicones--Polymerization
2. Phthalates--Polymerization
3. Condensation reactions
4. Varnishes--Development
5. Title: Block polymers
6. Title: Graft polymers
- I. Andrianov, K. A.
- II. Gribanova, O. I.
- III. AD-60-82
- IV. Air Information Div.,
Washington, D. C.
- V. AD-246 711

143,340

Office of Technical Services

Synthesis of Polymers From β -Chlorovinyl
Ketones, by A. N. Nesmeyanov, M. I. Rybinskaya,
G. L. Slonimskiy, 4 pp.

RUSSIAN, per, Vysokomolekulyarnyye
Soyedineniya, Vol II, No 4, 1960,
pp 526-528.

ATS-32M42R

Sci
Vol IV, No 7
Apr 62

192, 65²

Bykhovskii, V. K. and Minsker, K. S.
THE ROLE OF ELECTRONIC SURFACE IMPER-
FECTIONS IN HETEROGENEOUS CATALYTIC POLY-
MERIZATION. I. THE POLYMERIZATION OF THE
ALFINE TYPE, tr. by L. Gawronska. Dec 60, 9p.
20 refs. Courtaulds Miec. Lit. 3238; [DSIR LLU]
M. 2950.
Order from OTS or SLA \$1.10

61-23380

Trans. of Vysokomol [ekulyarnye] Soedineniya (USSR)
1960, v. 2, no. 4, p. 529-534.

DESCRIPTORS: *Polymerization, *Catalysts, Alkyl-
radicals, Chlorides, Alcohols, Alkali metals, Ethyl-
enes, Crystals, Electrons, Surfaces, Deformation.

The mechanism of heterogeneous catalytic polymeri-
zation is examined from a novel viewpoint. The active
centers of the catalyst surface are likened to electron
(Chemistry--Organic, TT, v. 6, no. 10) (over)

61-23380

- I. Bykhovskii, V. K.
II. Minsker, K. S.
III. Title: Polymerization ...
IV. Courtaulds ML-3238
V. DSIR LLU M. 2950
VI. Courtaulds Ltd.
(Gr. Brit.)

7629
Office of Technical Services

Minsker, K. S. and Bykhovskii, V. K.
THE ROLE OF ELECTRONIC SURFACE IMPERFECTI-
ONS IN HETEROGENEOUS CATALYTIC
POLYMERIZATION. II. SYSTEMS OF THE TYPE OF
ZIEGLER-NATTA CATALYSTS, tr. by L. Gawronska,
2 Mar 61, pp. 31 refs. Courtaulds Misc. Lit. 3280;
[DSIR LLU] M. 3181.
Order from OTS or SLA \$1.10

61-28143

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 4, p. 535-540.

DESCRIPTORS: Catalysts, *Polymerization, Crystals,
Impurities, Color centers, Lattices, Crystal structure,
Alkali metal compounds, Halides, Electrons.

The mechanism of heterogeneous catalytic polymeriza-
tion on catalysts of the Ziegler-Natta type was ex-
amined from a novel viewpoint. The catalytic activity of
(Chemistry--Physical, TT, v. 6, no. 11) (over)

61-28143

- I. Title: Ziegler-Natta catalysts.
- II. Minsker, K. S.
- III. Bykhovskii, V. K.
- IV. Title: Systems ...
- V. Courtaulds ML-3280
- VI. DSIR LLU M. 3181
- VI. Courtaulds Ltd. (Gt. Brit.)

100-78-1

Office of Technical Services

Wang, Po-shung, Dolgoplosk, B. A., and
Erusalimskii, B. L.
POLYMERIZATION OF ISOPRENE BY ORGANO-MAG-
NESIUM COMPOUNDS, Tr. by I. Gavronska.
24 Jan 61, 6p, 6 refs. Courtaulds Misc. Lit. 3267;
[DSIR LLU] M. 3083.
Order from OTS or SLA \$1.10 61-27557

Trans. of Vysokomolekulovannye Soedineniya (USSR)
1960, v. 2, no. 4, p. 541-545.

DESCRIPTORS: *Isoprene, Polymerization, *Magne-
sium compounds, Microstructure, Chemical bonds,
Molecular association, *Metal-organic compounds.

It has been found that organo-magnesium compounds,
free of ether, produce the polymerization of isoprene
at higher temperatures. Polyisoprene formed under
these conditions is constituted mainly of 3, 4 links. The
(Chemistry--Organic, TT, v. 6, no. 10) (over)

61-27557

- I. Wang, Po-shung
II. Dolgoplosk, B. A.
III. Erusalimskii, B. L.
IV. Courtaulds ML-3267
V. DSIR LLU M. 3083
VI. Courtaulds Ltd. (Ct. Brit.)

159
Office of Technical Services

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|---|---|
| <p>Santo, I. and Gal, K. GRAFTING OF VARIOUS MONOMERS TO POLY(VINYL ALCOHOL) FILMS UNDER THE ACTION OF X-RAYS. [1961] 3p. Order from ATS \$4.00</p> <p>Trans. of Vyssokomolukelyarnye Soedineniya (USSR) 1960, v. 2, no. 4, p. 546-548.</p> <p>DESCRIPTORS: *Monomolecular films, Vinyl alcohol, Alcohols, Films, Preparation, X-rays.</p> <p>(Physics--Molecular, TT, v. 7, no. 4)</p> | <p>62-12090</p> <p>I. Santo, I. II. Gal, K. III. ATS-92N54R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>Office of Technical Services</p> |
|---|---|

Carbon-Chain Polymers and Copolymers,
Part 23. Copolymerization of Diallyl Deriva-
tives of Germanium, Tin, and Silicon With
Styrene and Methyl Methacrylate in the
Presence of Benzoyl Peroxide, by G. S.
Kolesnikov, S. L. Davydova.

RUSSIAN, per, Vysokomolekulyarnyye
Soyed, Vol II, No 4, 1960, pp 567-571.

AT&T-31M42R
AT&T-PJ-2460
192, C40

Sci
Vol IV, No 7

Kozlov, P. V. and Berestneva, G. L.
EFFECT OF STRETCHING ON THE STRUCTURE
AND PROPERTIES OF POLYETHYLENE TEREPHTHALATE FILMS. I. UNIAXIAL STRETCHING OF FILMS.
[26 Apr 63] [25 p. 13 refs.
Order from OTS or SLA \$2.60 63-18380

Trans. of Vysokomol[ekulyarnye] Soed[ineniya] (USSR)
1960, v. 2, no. 4, p. 591-600.

DESCRIPTORS: *Plastic films, *Polyester plastics,
*Phthalates, Ethylenes, Deformation, Mechanical
properties, Tensile properties, Photographic film.

The mechanical properties and structural changes of
polyethyleneterephthalate films subjected to uniaxial
stretching over a broad range of temperature at varying
rates and up to various limits were investigated.
Orientation, relaxation and crystallization processes
taking place in the films being stretched under the
(Materials--Plastics, TT, v. 10, no. 11) (over)

63-18380

1. Title: Polyethylene terephthalate
1. Kozlov, P. V.
- II. Berestneva, G. L.
- III. Title: Uniaxial ...

Office of Technical Services

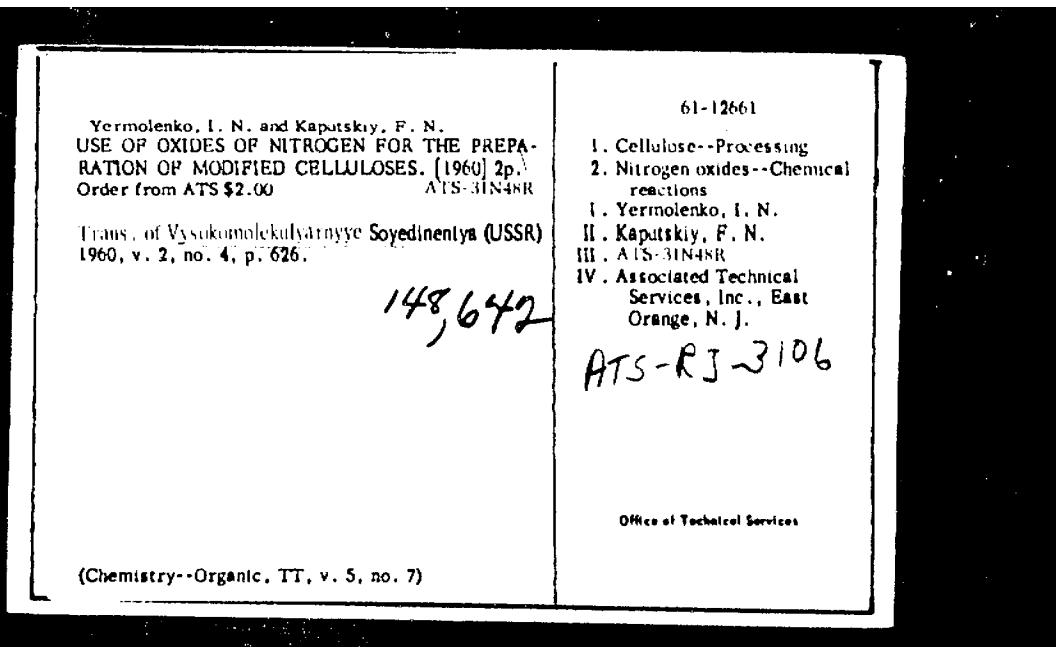
Investigation of Dielectric Losses and
Polarization of Stereoregular α X Polymethyl
Methacrylate, by G. P. Mikhaylov, T.
I. Borisova, 8 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol II, No 4, 1960, pp 619-625.

ATB-1543R
ATT/RG-242E

Sci
Vol IV, No 9
Mar 62

187, 133



Heterochain Polyamides. XIII. Interfacial
Polycondensation of BIS (p-carboxyphenyl)
Phenylphosphine Oxide Dichloride With Hexa-
methylenediamine, by V. V. Korshak, et al.

RUSSIAN, per, Vysokomolekulyarnye Soyedinaniya,
Vol II, 1960, pp 633-635.

Sci - Chem

Feb 61

AT&T 2543R

AT&T 2543R

138,279

Studies in the Field of Coordination Polymers,
IV. Preparation of Polymers Based on
Aromatic BIS (β -Diketones) With Metals,
by V. V. Korshak, Ye. S. Krongauz, V. Ye.
Sheyna, 10 pp.

RUSSIAN, per, Vysokomolekulyarnye Soyed.
Vol II, No 5, 1960, pp 662-672.

Sci
Vol IV, No 7
Apr 62

ATS-13M43R
472/RZ-467
192,642

Heterochain Polyamides. XXIV. Preparation of
Mixed Polyamides at the Phase Interface, by V. V.
Korshak, et al.

RUSSIAN, per, Vyssokomolekulyarnye Soyedineniya,
Vol II, 1960, pp 673-676.

AM 870438
470/AT-277

Sci - Chem

Feb 61

138, 277

Phosphorus-Containing Polymers. Part 2. An Application of the Arbuzov Reaction to the Synthesis of the Polyphosphonates, by K. A. Petrov, et al.

RUSSIAN, per, Vysokomolekulyarnye Soedineniya, Ak Vol II, 1960, pp 685-688.

Sci - Chem
Feb 61

AT&T 3243R
450/T-24/21
138, 281

Berlin, A. A., Liogen'kiv, B. I., and Partin, V. P.
DERIVATION AND PROPERTIES OF SOME AROMATIC POLYMERS. 31 Oct 60, 2p. AID rept. 60-76.
Order from LC or SLA m\$1.80, ph\$1.80 64-15025

Abstract trans. of Высокомолекулярные соединения (USSR) 1960, v. 2, no. 5, p. 699-697.
A complete translation is available from ATS, \$15.50,
as ATS-COM43R, 60-22941 [1960] 9p.

A linear polyphenylene polymer was synthesized by the decomposition of bis-dinitroized aromatic amines (benzidine or benzidine-3, 3'-dicarboxylic acid) in contact with Cu²⁺ ions. Analysis of the polymers obtained indicated the presence of -N=N- groups and chlorine in the structure.

(Chemistry--Organic, PL, v. 5, no. 4)

64-15025

- I. Cyclic compounds--
Polymerization
- II. Polymeric Systems
- I. Berlin, A. A.
- II. Liogen'kiv, B. I.
- III. Partin, V. P.
- IV. AID-60-76
- V. Air Information Div.,
Washington, D. C.

143,316
ATC/KT-2464

Office of Technical Services

Some Rules in Interfacial Copolycondensation,
by L. B. Sokolov, T. L. Kruglova, 7 pp.

RUSSIAN, per, Vysokomolekulyarnyye
Soyed, Vol II, No 5, 1960, pp 704-709.

ATS-24M43R

AT&T-2435

Sci
Vol IV, No 7
Apr 62

192,655

Effect of the Solvent Capacity of the Organic Phase in the Interfacial Preparation of Polyamides, by L. B. Sokolov, et al.

RUSSIAN, per, Vysokomolekulyarne Soyedineniya,
Vol II, 1960, pp 710-715.

ATS 1843R

Sci - Chem

K-167-241
138,272

Polymerization of Dialdehydes, by Yu. I.
Mitin, Yu. N. Sazanov, 3 pp.

RUSSIAN, per, Vysokomolekulyernyye
Soedineniya, Vol II, No 5, 1960,
pp 716-718.

HTS-PJ-3684
AT&T-4844R

Sci
Vol IV, No 11
Jun 62

199, 239

Uskov, I. A. and Kuanitsyna, T. A.
THE EFFECT OF DISPERSING AMINATED BEN-
TONITE IN THE MONOMER ON REINFORCEMENT
OF POLY(METHYL METHACRYLATE). Pt. 2 of
Filled Polymers. [1961] 3p.
Order from ATS \$7.00

ATS-68P58R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 5, p. 728-730.
An abstract trans. is available from I.C. or S.I. at: \$1.80
ph\$1.80 in 61-13988, AID-60-80, 7 Nov 60, 2p.

DESCRIPTORS: *Plastics, *Bentonite, *Acrylic resins,
Methyl radicals, Polymers, Binders.

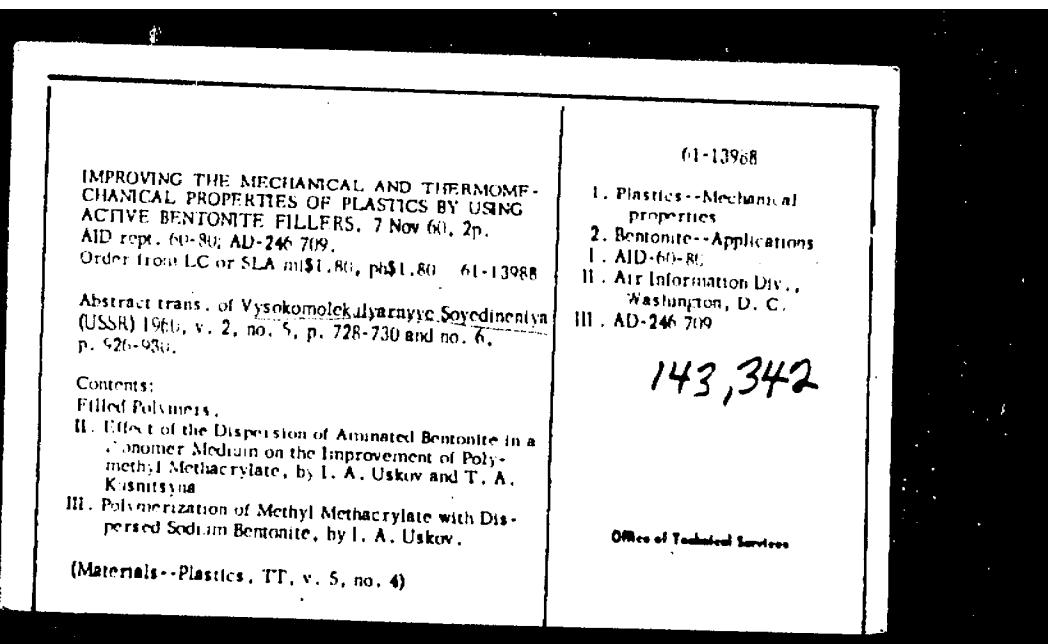
(Materials--Plastics, TT, v. 7, no. 9)

62-12669

I. Uskov, I. A.
II. Kuanitsyna, T. A.
III. Title: Filled...
IV. ATS-68P58R
V. Associated Technical Services
Inc., East Orange, N. J.

ATS-81-3612

Office of Technical Services



Kargin, V. A., Kabanov, V. A., and Zubov, V. P.
THE FORMATION OF ISOTACTIC POLYMETHYL-
METHACRYLATE DURING PHOTOPOLYMERIZATION
IN THE SYSTEM: METHYL METHACRYLATE-ZINC
CHLORIDE. [1961] [7p. 8 refs.
Order from OTS or SLA \$1.10

62-13837

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 5] p. 756-769.

DESCRIPTORS: *Methyl radicals, *Polymers, *Zinc
compounds, *Chlorides, Phase transitions, Micro-
structure, Molecular structure, Polymerization.

It has been shown that an isotactic polymer is pro-
duced in the radical-induced polymerization of methyl
methacrylate at room temperature in the presence of
zinc chloride dissolved in the monomer. The effect of
the conformation of the reactant molecules in the
(Chemistry--Organic, TT, v. 7, no. 10) (over)

62-13837

- I. Kargin, V. A.
- II. Kabanov, V. A.
- III. Zubov, V. P.
- IV. Translations, New York

Office of Technical Services

Kozlov, P. V., Makaruk, L. and others
THE EFFECT OF MOLECULAR WEIGHT ON THE
TRANSITION TEMPERATURES OF THE POLYCAR-
BONATES. Pt. I. of Investigations in the Field of Poly-
carbonates. [1960] 9p.
Order from ATS \$11.95

ATS-43M46R

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 2, no. 5, p. 770-777.

147,024

61-12371

1. Polymers--Transition temperature
2. Carbonates--Transition temperature
3. Carbonates--Molecular weight
4. Molecular weight--Chemical effects
- I . Kozlov, P. V.
- II . Makaruk, L.
- III . Title: Investigations...
- IV . ATS-43M46R
- V . Associated Technical Services, Inc., East Orange, N. J.

ATS-RJ-2686

Office of Technical Services

(Physics--Molecular, TT, v. 5, no. 5)

Andrianov, K. A., Bochkareva, G. P. and others.
POLYANHYDRIDES FROM PHTHALIC ACIDS AND
MIXED PHTHALICADIPIC ACIDS. [1962] 5p.
Order from ATS \$6.25 ATS-41P60R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 5, p. 793-796.

DESCRIPTORS: *Anhydrides, Hydrides, Polymers,
Synthesis, *Phthalic acids, acids, *Adipic acids,
Chemical reactions.

(Chemistry--Organic, TT, v. 8, no. 2)

62-17301

I. Andrianov, K. A.
II. Bochkareva, G. P.
III. ATS-41P60R
IV. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS - RJ - 3616

Office of Technical Services

61-10571

Volkova, A. I., Koton, M. M., and Savitskaya, M. N.
THE INFLUENCE OF THE CHEMICAL STRUCTURE
OF SOME UNSATURATED ESTERS ON THEIR POLY-
MERIZING ABILITY. [1960] Sp. (3 figs. omitted)
3 refs.

Order from LC or SLA m/\$1.80, ph\$1.80 61-10571

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 27 no. 5 p. 802-805.

Experiments showed that esters of acrylic acid are
polymerized at a higher rate than isomeric to them
vinyl esters. The introduction into the alkyl group of
an unsaturated ester of chlorine atom, and the length-
ening of alkyl radical slows down the polymerization
process.

1. Acrylic ac. esters--
Polymeriz. ion
2. Vinyl compounds--
Polymeriz.
3. Molecular structure--
Chemical effects

1. Volkova, A. I.
2. Koton, M. M.
3. Savitskaya, M. N.

148, 542

Office of Technical Services

(Chemistry--Organic, TT, v. 5, no. 7)

18

(NY ~~4780~~ 4486).

First All-Union Conference on Nucleic Acids and
Nucleoproteins, by V. S. Tengur, P. I. Tseyvalin.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol II, No 5, 1960, pp 817-822.

*JPRS

Sci/Biol/Chem

26 Jun 60

Korshak, V. V., Frunze, T. M., and Kozlov, L. V.
HETEROCHAIN POLYAMIDES. XXV. INTERFACIAL
PREPARATION OF POLYAMIDES CONTAINING
PIPERAZINE RESIDUES. [1960] 8p.
Order from ATS \$12.45 ATS-93N47R

Trans. of Vysokomolekulyarnye Soyedineniya (USSR)
1960, v. 2, no. 6, p. 838-844.

148,672

I. Amides-Polymerization
I. Korshak, V. V.
II. Frunze, T. M.
III. Kozlov, L. V.
IV. Title: Interfacial...
V. ATS-93N47R
VI. Associated Technical
Services, Inc., East
Orange, N. J.

Office of Technical Services

(Chemistry--Organic, TT, v. 5, no. 7)

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| <p>Korshak, V. V., Frunze, T. M., and Kozlov, L. V. HETEROCHAIN POLYAMIDES. XXVI MIXED POLYAMIDES FROM PIPERAZINE AND ALIPHATIC AND AROMATIC DICARBOXYLIC ACIDS. [1960] 6p. Order from ATS \$8.55 ATS-94N478 <i>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)</i> 1960, v. 2, no. 6, p. 845-850.</p> <p><i>148,668</i></p> <p>(Chemistry--Organic, TT, v. 5, no. 7)</p> | <p>61-12689</p> <p>I. Amides--Polymerization II. Carboxylic acids-- Polymerization III. Korshak, V. V. IV. Frunze, T. M. V. Kozlov, L. V. VI. Title: Mixed... VII. Associated Technical Services, Inc., East Orange, N. J.</p> <p><i>ATS-RI-2676</i></p> <p>Office of Technical Services</p> |
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Synthesis and Investigation of Unsaturated Polyamides, by O. Ya. Fedotova, S. P. Kryzina, 4 pp.

RUSSIAN, por, Vysokomolekulyarnyye Soyadineniya, Vol II, No 6, 1960,
pp 875-878.

ATS-40244R ATS-RJ-2669

Sci
Vol IV, No 11
Jun 62

199, 237

Synthesis and Investigation of High-Molecular-Weight Tertiary Amines and Quaternary Ammonium Compounds From Copolymers of 2-Methyl-5-Vinylpyridine and Various Cross-Linking Agents,
9 pp. 9671176

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol II, No 6, 1960, pp 884-890.

PTD MCL-974/1

Sci - Chem

171, 349

20 Oct 61

Synthesis and Investigation of Aromatic Polyamides, by O. Ya. Fedotova, I. P. Loshev, et al.

RUSSIAN, par, Vysokomolekulyarnyye Soyed,
Vol II, No 6, 1960, pp 899-903.

Sci
Vol IV, No 11
Jun 62

DECATS-41M44R
ATS-RJ-2670
199, 236

Uskov, I. A.
FILLED POLYMERS. III. POLYMERIZATION OF
METHYLMETHACRYLATE WITH THE DISPERSION
OF SODIUM BENTONITE. [1963] [10]p. 9 refs.
Order from OTS or SLA \$1.10 63-165%

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 6, p. 926-930.
An abstract trans. is available from LC or SLA
ml\$1.80, ph\$1.80 in 61-13988, AID-60-80, 7 Nov 60, 2p.

DESCRIPTORS: *Methyl radicals, *Acrylic resins,
*Sodium compounds, *Bentonite, Graft polymers,
Polymerization, Fillers.

At the vibration disintegration of air-dry sodium
bentonite blocks in a methylmethacrylate medium,
this monomer is polymerized and polymethylmetha-
crylate is grafted onto the dispersed bentonite particles.
(Materials--Plastics, TT, v. 10, no. 6) (over)

63-16596

I. Title: Methyl methacrylate
I. Uskov, I. A.
II. Title: Polymerization ...

Office of Technical Services

Electron-Microscope Investigation of the
Structure of Polycarbonates, by L. Makaruk,
P. V. Kozlov, 8 pp.

RUSSIAN, pos, Vysokomelkulyarnyye Soged,
Vol II, No 6, 1960, pp 931-936.

Sci
Vol IV, No 1
May 62

ATS-42M44R
A15-KJ-2687
197,944

(DC-5505).

A. V. Dumanskiy: 80th Birthday,

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol II, No 6, 1960, pp 960-961.

*JPRS

Sci - Biographical

7 Mar 61

A Study of Some Relationships in Interfacial Polyesterification, by V. V. Korshak, S. V. Vinograd, A. S. Lebedeva, 7 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol II, No 7, 1960, pp 977-983.

MS-05M45R
FTS - R5-2677

Sci

202, 216

Jun 62

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 2,
P. 211-366. Aug 62, 1v.
Order from PP \$100.00/year

63-17527-2

I. Pergamon Press, Inc.,
New York

Trans. of Vysokomolekulyarnye Sredstva (USSR) 1960,
v. 2, no. 7, p. 989-993, 1026-1030, 1039-1048, 1082-1092,
1103-1108, 1122; no. 8, p. 1157-1161, 1167-1170,
1176-1187, 1193-1195, 1213-1220, 1280-1282, 1287;
no. 9, p. 1297-1300, 1309-1319, 1360-1369, 1375-1382,
1391-1397, 1426-1431. Abstracts are included of
selected articles from v. 3, no. 12 and v. 4, no. 1.

DESCRIPTORS: *Polymers, Chemistry, *Amides,
Condensation reactions, *Ethylenes, Reaction kinetics,
Electrical conductance, *Acrylic resins, *Benzenes,
*Isoprenes, Polymerization, Copolymerization, *Radia-
tion chemistry, *Phenol radicals, *Acetylenes, *Acryloni-
triles, *Propenes, *Phenol-formaldehyde resins, Anisot-
ropy, Degradation, *Styrenes, *Electron microscopy,
(Chemistry--Organic, TT, v. 10, no. 4) (over)

Office of Technical Services

Tszen, Khan-min and Kolesnikov, G. S.
CARBON-CHAIN POLYMERS AND COPOLYMERS.
XXV. THE ACTION OF CHLORIDES OF UNSATURATED ACIDS ON POLYVINYL ALCOHOL. [1960]
6p. (refs. 4 figs. omitted).
Order from LC or SLA m\$1.80, ph\$1.80 61-10703

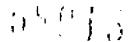
Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 2 [no. 7] p. 1010-1012.

Properties of polyvinyl alcohol can be changed by its
treatment with chlorides of unsaturated acids. (See
also 61-12764)

(Chemistry--Organic, TP, v. 5, no. 11)

61-10703

1. Polymers--Synthesis
 2. Copolymerization--Analysis
 3. Vinyl alcohol--Polymerization
 4. Chlorides--Chemical reactions
- I. Tszen, Khan-min
II. Kolesnikov, G. S.
III. Title: Action...



Office of Technical Services

Investigation of the Fine Molecular Structure
of Oriented Regenerated Cellulose Fibres
by N. V. Mikhailov.

RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol II, No 7, 1960, pp 1031-1038.

HLL RTS 2114

Sci - Mat Phys
Mar 63

223,617

Kinetic Study of Interfacial Polycondensation by
Electrical Conductivity Measurements, by Ye. Z.
Faynberg, N. V. Mikhaylov, 5 pp.

RUSSIAN, per, Vysockomolekulyarnyye Soyedineniya,
Vol. II, No 7, 1960, pp 1039-1044.

ATS-08445R
ATS-PZ-2-73

203, 218

Scd

Jun 62

Tavetkov, V. N., Skazka, V. S., and Krivoruchko, N. Ya.

RELATION BETWEEN THE MOLECULAR WEIGHT AND INTRINSIC VISCOSITY OF STEREOREGULAR POLYMETHYL METHACRYLATE FRACTIONS IN BENZENE. [1961] (6) p. 8 refs.

Order from OTS or SLA \$1.10

62-13836

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1960, v. 2 [no. 7] p. 1045-1048.

DESCRIPTORS: *Benzene, *Polymers, Methyl radicals, Methanes, Acrylic resins, Molecular weight, Viscosity, Stereochemistry.

A study was made of the scattering of light by various fractions of isotactic and syndiotactic PMMA in acetone and ethyl acetate, and the intrinsic viscosities of these fractions in benzene have been determined. It has been shown that the variation of the intrinsic viscosity of the (Chemistry--Organic, TT, v. 8, no. 2) (over)

62-13836

I. Title: Stereoregular polymers

I. Tavetkov, V. N.

II. Skazka, V. S.

III. Krivoruchko, N. Ya.

IV. Translations, New York

Office of Technical Services

Yeskin, V. Ye.

ASYMMETRY OF CRITICAL OPALESCENCE IN
SOLUTION OF POLYSTYRENE IN CYCLOHEXANE,
tr. by Carl Demrick. [1960] 9p. (equations 3 figs.
1 table omitted) 13 refs.

Order from OTS or SLA \$1.10

61-15283

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 2, no. 7, p. 1049-1055.

DESCRIPTORS: *Polymer solutions, Styrenes,
Polymers, Cyclohexanes, Optics.

(Chemistry--Physical, TT, v. 6, no. 1)

61-15283

I. Yeskin, V. Ye.

101730

Office of Technical Services

Kallistov, O. V. and Korneeva, E. V.
A STUDY OF THE FLOW BIREFRINGENCE OF
ISOTACTIC POLYSTYRENE FILMS. [1961] [9]p.
7 refs.

Order from OTS or SLA \$1.10 62-13835

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 7] p. 1056-1062.

DESCRIPTORS: *Films, *Styrenes, *Polymers,
Elasticity, Crystallization, Temperature, Photo-
elasticity, *Refractive index, Optics.

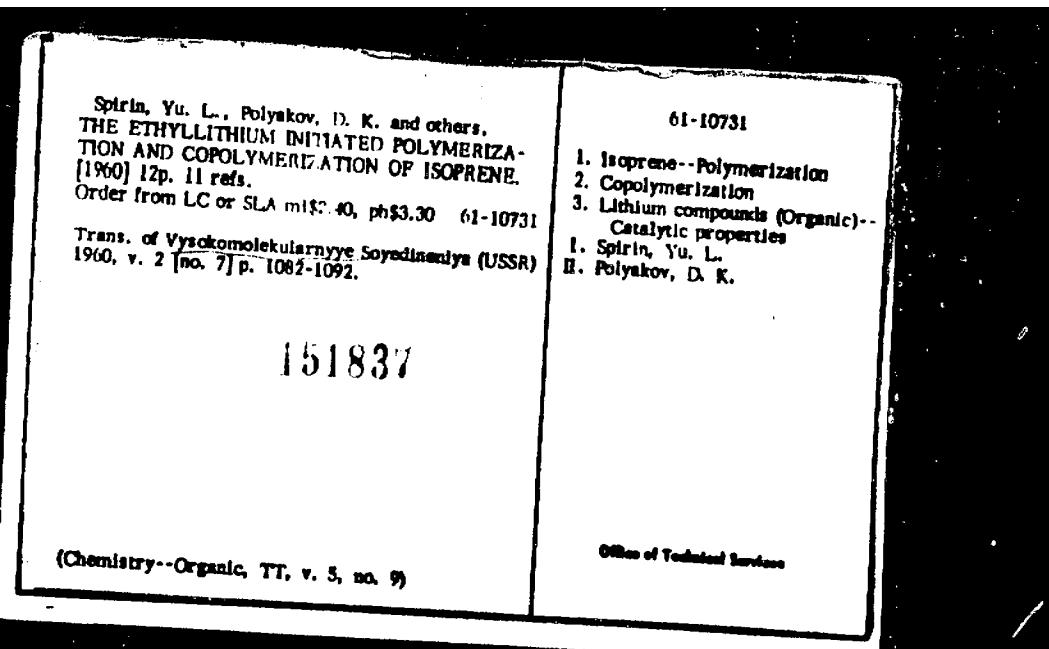
Flow birefringence and the photoelastic effect have
been found to vary with temperature in films of
stereoregular (isotactic) polystyrene in the highly
elastic state, due to the appearance of the initial
phase of crystallization. The photoelastic constant
has been found to vary with temperature in amorphous
(Physica--Solid State, TT, v. 7, no. 11) (over)

62-13835

I. Kallistov, O. V.
II. Korneeva, E. V.
III. Translations, New York

Office of Technical Services

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| <p>Arbuzova, I. A. and Sultanov, K. POLYMERIZATION OF DIVINYL ACETALS. [1960] 5p. Order from: ATS \$8.50</p> <p>Trans of Vysokomolekulyarnye Soyedineniya (USSR) 1960, v. 2, no. 7, p. 1077-1081.</p> <p>148,666</p> <p>(Chemistry--Organic, TT, v. 5, no. 7)</p> | <p>61-12687</p> <p>I. Acetals--Polymerization I. Arbuzova, I. A. II. Sultanov, K. III. ATS-28M47R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS - RJ-3687</p> <p>Office of Technical Services</p> |
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Synthesis of Unsaturated Polyamides and
Polyesters by Polycondensation at the Phase
Interface, by G. S. Kolesnikov, A. S.
Malosnitsev, 3 pp.

RUSIAN, per, Vysokomolekulyarnye Soyedineniya,
Vol. II, No 7, 1950, pp 1119-1121.

ATS-06M45R ATS - RJ - 2174

See

203, 214

Jun 62

Frisman, E. V., Martsinovskii, A. M., and
Domnicheva, N. A.

OPTICAL ANISOTROPY OF MACROMOLECULES OF
POLYSTYRENE DERIVATIVES. [1961] [9]p. 22 refs.
Order from OTS or SLA \$1.10

62-13834

62-13834

I. Frisman, E. V.
II. Martsinovskii, A. M.
III. Domnicheva, N. A.
IV. Translations, New York

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, p. 1148-1153.

DESCRIPTORS: *Styrenes, *Polymers, *Optics,
Polarization, Molecular rotation.

The segmental anisotropy of polystyrene derivatives
was measured by the method of flow birefringence.
Analysis of the experimental data indicates that the
nature of rotation of the side groups may be considered
to be the same in molecules of poly-p-chlorostyrene,
poly-2, 5-dimethylstyrene, and polystyrene. This as-
sumption does not satisfy the experimental findings for
(Physics--Molecular, T, v. 8, no. 8) (over)

Office of Technical Services

Volchek, B. Z. and Roberman, Zh. N.
DETERMINATION OF "MICROTACTICITY" IN
POLYPROPYLENE CHAINS BY THE METHOD OF
POLARISED, INFRARED SPECTRA. [1961] 6p. 16 refs.
Order from OTS or SLA \$1.10

61-14967
L Volchek, B. Z.
IL Roberman, Zh. N.

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960 [v. 2] no. 8, p. 1157-1161.

DESCRIPTORS: *Propenes, *Polymers, Mechanical
properties, Infrared spectroscopy, Dichroism.

161771

(Chemistry--Organic, TT, v. 6, no. 1)

Office of Technical Services

Korshak, V. V., Vinogradova, S. V., and
Lebedeva, A. S.
HETERO-CHAIN POLYESTERS. PT. 28. A STUDY
OF SOME RELATIONSHIPS GOVERNING INTER-
FACIAL POLYESTERIFICATION. [1960] 5p.
Order from ATS \$7.75 ATS-86M45R

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 2, no. 8, p. 1162-1166.

61-12091

1. Esters--Polymerization
2. Title: Polyesterification
- I . Korshak, V. V.
- II . Vinogradova, S. V.
- III . Lebedeva, A. S.
- IV . Title: Study...
- V . ATS-86M45R
- VI . Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-RJ-2678

141, 160

Office of Technical Services

(Chemistry--Organic, TT, v. 5, no. 2)

Shantarovich, P. S. and Shlyapnikova, I. A.
POLYMERIZATION OF CYCLOHEXADIENE. [1961]
[7]p. 3 refs.
Order from OTS or SLA \$1.10

62-13767

62-13767

I. Shantarovich, P. S.
II. Shlyapnikova, I. A.
III. Translations, New York

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 8, p. 1171-1175.

DESCRIPTORS: *Cyclohexadienes, Polymerization,
Heat of reaction, Peroxides, Reaction Kinetics.

The polymerization of cyclohexadiene is described for
the case when the reaction is initiated by heat and by
peroxide. It was established that in thermal initiation
the original centers of polymerization are produced
as the result of a bimolecular reaction involving the
formation of a diradical. The reaction has an ex-
tremely low frequency factor. The diradical center
vanishes during the autosaturation and cyclization
reaction (provided there are no steric hindrances
(Chemistry--Organic, TT, v. 7, no. 11) (over)

Office of Technical Services

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| <p>Tavetkov, V. N. and Boytsova, N. N. STEREOREGULARITY AND OPTICAL ANISOTROPY IN POLY(METHYL METHACRYLATE) MOLECULES. [1960] 12p. Order from ATS \$17.70 ATS-18N48R Trans. of <i>Vysokomolekulyarnyye Soyedineniya</i> (USSR) 1960, v. 2, no. 8, p. 1196-1187.</p> <p>18N48R</p> <p>(Chemistry--Organic, TT, v. 3, no. 8)</p> | <p>61-12762</p> <p>1. Methyl acrylate-- Molecular structure 2. Methyl acrylate-- Optical properties 3. Stereochemistry I. Tavetkov, V. N. II. Boytsova, N. N. III. ATS-18N48R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/AT-3017</p> <p>Office of Technical Services</p> |
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CEA-tr-R-1388 Uncl.

INTERACTION DU SOUFRE ET DU CAOUTCHOUC NATUREL
SOUS L'ACTION DE RAYONNEMENTS IONISANTS.
(Interaction of Sulfur and Natural Rubber
Under the Action of Ionizing Radiations).
Z. N. Tarasova, M. Ya. (Ia.) Kaplunov, V. T.
Kozlov, N. A. Klauzen, and B. A. Dogadkin.
Translated into French from Vysokomolekulyarnye
Sedineniya, 2: 1201-6(1960). 18p.

Chemistry; Radiation Effects;
Translations MC-40

C-40 NP NSA Dep.(mc); \$1.60(fs), \$0.80(mf)
N-8 JCL o [redacted] TS

Zabolotskaya, E. V., Gantmakher, A. R., and
Medvedev, S. S.
POLYMERIZATION OF STYRENE BY THE ACTION
OF COMPLEX CATALYSTS. [1961] [12]p. 15 refs.
Order from OTS or SLA \$1.60 62-13833

Trans. of Vysokomolekul'yanye Soedineniya (USSR)
1960, v. 2 [no. 8] p. 1213-1220.

DESCRIPTORS: *Styrenes, *Polymerization, Catalysts,
Titanium compounds, Chlorides, Aluminum com-
pounds, Alky radicals, Benzenes, Polymers.

A study was made of the kinetics of styrene polymeriza-
tion by the action of titanium trichloride and an alkyl
aluminum in benzene. The rate of polymerization is
proportional to the concentrations of the monomer and
the titanium trichloride. The activation energy of the
styrene polymerization process is 11 Kcal/mol. The
(Chemistry & Organic, TT, v. 7, no. 11) (over)

62-13833

I. Zabolotskaya, E. V.
II. Gantmakher, A. R.
III. Medvedev, S. S.
IV. Translations, New York

Office of Technical Services

The Role of Oxygen in the Polymerization of Vinylidene Chloride, by G. A. Razuvayev, K. S. Minsker,
15 pp.

RUSSIAN, per, Vysok Soedineniya, Vol II, No 8,
1960, pp 1239-1245.

K-1 10610 a

Sci-Chem
April 64

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| <p>Fedorova, O. Ya. and Mao, Bin-tsyuan. SYNTHESIS AND STUDY OF POLYAMIDOUREAS. [1960] 7p. Order from ATS \$10.15</p> <p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. 8, p. 1255-1260.</p> <p>(Chemistry--Organic, TT, v. 5, no. 2)</p> | <p>61-12078</p> <p>I. Urea derivatives--Synthesis 2. Amide polymers--Synthesis I . Fedorova, O. Ya. II . MAO, B. III . ATS-87M45R IV . Associated Technical Services, Inc. East Orange, N. J.</p> <p>A-T-RJ-2679</p> <p>141, 150</p> <p>Office of Technical Services</p> |
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Kolesnikov, G. S., Suprun, A. P. and others.
CARBOCHAIN POLYMERS AND COPOLYMERS. XXVI
POLYMERIZATION AND COPOLYMERIZATION OF
1,1,2-TRICHLOROBUTADIENE-1,3. [1961] 4p.
(3 figs. omitted) 1 ref.

Order from OTS or SLA \$1.10

61-20641

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 8] p. 1266-1269.

DESCRIPTORS: *Chloroprenes, *Polymers, Poly-
merization, Copolymerization.

Polymers of 1,1,2-trichlorobutadiene-1,3 were ob-
tained and the dependence of thermomechanical prop-
erties on molecular weight was determined. Copoly-
mers of 1,1,2-trichlorobutadiene-1,3 with styrene and
methylmethacrylate were studied and the dependence of
(Chemistry--Organic, TT, v. 7, no. 7) (over)

61-20641

I. Kolesnikov, G. S.
II. Suprun, A. P.
III. Title: Polymerization...

Office of Technical Services

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|---|--|
| <p>Kargin, V. A., Bakayev, N. F. and others. ELECTRON-MICROSCOPIC STUDY OF CRYSTAL STRUCTURES OF POLYSTYRENE AND POLYPROPYLENE. [1961] 4p. Order from ATS \$5.25</p> <p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1970, v. 2, no. 8, p. 1279-1282.</p> <p>100-5-11</p> <p>(Chemistry--Organic, TT, v. 5, no. 10)</p> | <p>61-22016</p> <p>1. Styrene polymers-- Crystal structure 2. Propene polymers-- Crystal structure 3. Electron microscopy-- Applications</p> <p>I. Kargin, V. A. II. Bakayev, N. F. III. ATS-17N48R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS-RJ-3056</p> <p>Office of Technical Services</p> |
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61-12081

Mikhaylov, N. V., Gorbacheva, V. O. and others.
INVESTIGATION OF THE STRUCTURE OF POLY-
AMIDES PREPARED BY INTERFACIAL POLYCONDEN-
SATION. [1960] 5n.

Order from ATS \$6.65

ATS-68M45R

Trans. of Vysokomolekularnyye Soyedineniya (USSR)
1960, v. 2, no. 5, p. 1233-1266.

1. Amide polymers--
Molecular structure
2. Condensation reactions
- I. Mikhaylov, N. V.
- II. Gorbacheva, V. O.
- III. ATS-68M45R
- IV. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS - RI - 2571

12081-2571
Office of Technical Services

Spaskiy, S. S., Mat'kova, M. Ye., and Tokarev,
A. V.
COPOLYMERIZATION OF UNSATURATED ESTERS
WITH VINYL MONOMERS. VI. THERMOMECHANICAL
STUDY OF COPOLYMERS OF UNSATURATED
POLY ESTERS AND VINYL MONOMERS. [1961] 8p.
6 refs.
Order from LC or SLA m\$1.80, ph\$1.80 61-10985

Trans. of Vysokomolekulovyye Soyedineniya (USSR)
1960, v. 2 [no. 9] p. 1297-1300.

(Chemistry--Organic, TT, v. 5, no. 12)

61-10985

1. Copolymerization
2. Esters--Polymerization
3. Vinyl compounds--
 Polymerization
- I. Spaskiy, S. S.
- II. Mat'kova, M. Ye.
- III. Tokarev, A. V.
- IV. Title: Thermomechanical

145753

Office of Technical Services

Dynamic Properties of Viscoelastic Materials During
Anharmonic Loading, by L. S. Priss.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
No 9, 1960, pp 1309-1319. 9663614

*ATIC MCL 820/1

Sci - Chem

2 Feb 61

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| <p>Spasskiy, S. S. and Molchanova, T. V. COPOLYMERIZATION OF UNSATURATED POLY- ESTERS WITH VINYL MONOMERS. X. THERMO- MECHANICAL STUDY OF COPOLYMERS OF THREE- COMPONENT SYSTEMS. [1961] 8p. [3 graphs omitted] 12 refs. Order from OTS or SLA \$1.10 61-10984 Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2 [no. 9] p. 1320-1323.</p> <p>DESCRIPTORS: *Copolymerization, Polymers, *Esters, *Vinyl radicals, *Ethylenes, Glycols, Styrenes, Acetates, Methyl radicals, Fumaric acids, Adipic acids.</p> <p>(Chemistry--Organic, TT, v. 6, no. 2)</p> | <p>61-10984 I. Spasskiy, S. S. II. Molchanova, T. V. III. Title: Thermomechanical... 105000 Office of Technical Services</p> |
|--|--|

Investigation of the Strength Characteristics
of Polymers at High Deformation Rates, by
V. P. Gulya

RUSSIAN, par., Vysokomolekulyarnye Soyed.
Vol II, No 11, 1960, pp 1616-1619.

ML/MTG 1961

Sci - Chem

ATS 193, 836

Apr 62

Menchlik, Z.

SOME COMMENTS ON THE CRYSTAL STRUCTURE
OF POLYACRYLONITRILE [1961] [5]p. 6 refs.
Order from OTS or SLA \$1.10

62-13768

62-13768

I. Menchlik, Z.
II. Translations, New York

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 11] p. 1635-1638.

DESCRIPTORS: *Acrylonitriles, Polymers, *Crystal
structure, Diffraction, Density.

According to the literature polyacrylonitrile is said to
have unit cells of hexagonal structure. It has been es-
tablished that a hexagonal unit cell must be rejected
for several reasons. Owing to the poorly defined dif-
fraction pattern (all the equatorial reflections are ex-
tremely weak, except for two, with blurred diffraction
spots on the other layer lines), the unit diffraction cell
cannot be described with certainty. The observed par-
(Chemistry--Organic, TT, v. 7, no. 10) (over)

ATS

Office of Technical Services

Preparation and Polymerization of Unsaturated Compounds
Containing Metals, by M. M. Koton, T. M. Kaseleva,
F. S. Florinskiy, 8 pp.

RUSSIAN, per, Vysokomolekulyarnye Soyedineniya, Vol II,
No 11, 1960, pp 1639-1644.

CIA/FDD XX-1049
NOT RELEASABLE TO FOREIGN NATIONALS

Lanovskaya, L. M., Gantmakher, A. R., and
Medvedev, S. S.
POLYMERIZATION OF ETHYLENE WITH THE
COMPLEX CATALYST $\text{AlCl}_3\text{-AIR}_3$ IN THE PRE-
SENCE OF VARIOUS MONOMERS. II. SOME ASPECTS
OF THE MECHANISM OF POLYMERIZATION IN THE
PRESENCE OF COMPLEX CATALYSTS. [1961]
[5]p. 14 refs.

Order from OTS or SLA \$1.10 62-13838

Trans. of *Vysokomolekulyarnye Soedineniya* (USSR)
1960, v. 2 [no. 11] p. 1655-1658.

DESCRIPTORS: *Ethylenes, *Polymerization, *Cata-
lysts, Butadienes, Isoprenes, Styrenes, *Fluorine
compounds, Chlorides, *Aluminum compounds,

(Chemistry-Organic, TT, v. 7, no. 11) (over)

62-13838

I. Lanovskaya, L. M.
II. Gantmakher, A. R.
III. Medvedev, S. S.
IV. Title: Some ...
V. Translations, New York

ATS

Office of Technical Services

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| <p>Losev, I. P., Smirnova, O. V. and others. INVESTIGATION OF INTERFACIAL POLYESTERIFICATION. [1960] 6p. Order from ATS \$0.60 Trans. of <u>Vysokomolekulovannye Soyedineniya</u> (USSR) 1960, v. 2, no. II, p. 1639-1644.</p> <p>151516</p> <p>(Chemistry--Organic, TT, v. 5, no. 8)</p> | <p>61-12758</p> <p>1. Esters--Polymerization 2. Title: Polyesterification I. Losev, I. P. II. Smirnova, O. V. III. ATS-35N48R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/KJ, 3007</p> <p>Office of Technical Services</p> | |
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R-771-N

Adhesion o" Polymers, VII Adhesion of
Carboxyl-Containing Copolymers to Various Substitutes,
by S. S. Vayutskiy, et al.

RUSSIAN, per, Vysekemolekilarne Soyedineniya,
Vol II, No 11, 1960, pp 1671-1677.

*JPRS for Picatinny Arsenal

Sci - Phys

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13 Oct 61

Internal stresses in coatings. XV. Relation of self-evaluating internal stresses in polymer and carbon and Vastman Scattering, by A. T. Schuhmacher, 22 pp.

RUBBER, PVC, NYLON, Vol III, No 22, 1960,
pp 1698-1702. 9210747

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Set. - Met & Mat pp 1698-1702 1/2. 1/100078

Aug 63

341352

Internal Stresses in Coatings, II, Experimental
Methods of Studying Internal Stresses in Polymer
and Paint and Varnish Coatings, by A. T.
Sushkovskiy, G. I. Epifanov, 17 pp.

RUSSIAN, per, Vyssokomolekulyarnye Soedineniya,
Vol II, No 11, 1960, pp 1703-1708.

MIL M 10084

Sci - N/N
May 63

229,854
(9210747)

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Internal Stresses in Coatings III, Study of
Internal Stresses in Cellatin and Acetyl
Cellulose Films Applied to Solid Backings, by
A. T. Sanzharovskiy, G. I. Epifanov, 15 pp.

RSSIAN, per, Vyssokomolekulyarnye Soedineniya,
Vol II, No 11, 1960, pp 1709-1714.

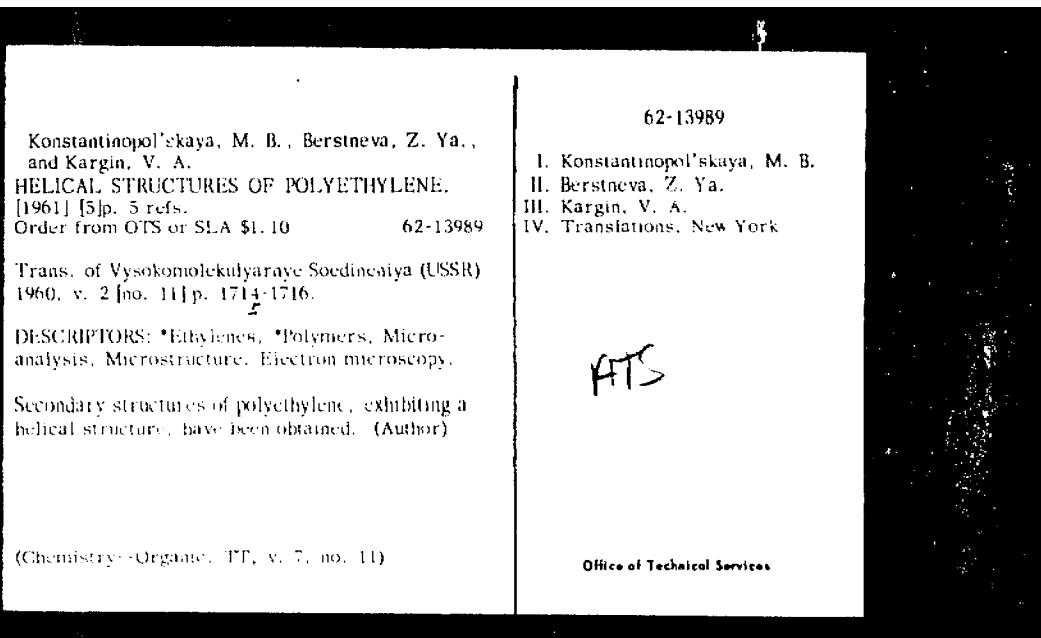
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MLL M 10023

AFC-NP 70-1017

(92104-77) 229,805

Ser - N/M
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| <p>Kolesnikov, G. S. and Tazan, Khan-min. CARBON-CHAIN POLYMERS AND COPOLYMERS. XXVIII. PREPARATION OF GRAFT COPOLYMERS BY THE REACTION OF POLY(METHYL METHACRYLATE) AND POLY(ETHYLENE AZBLATE). [1960] 6p. Order from ATS \$8.00 ATS-13N49R Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. II, p. 1717-1721.</p> <p style="text-align: center;">131541</p> <p>(Chemistry--Organic, TT, v. 5, no. 8)</p> | <p>61-12764</p> <p>1. Polymers--Synthesis 2. Copolymerization--Analysis 3. Acrylates--Polymerization 4. Ethylenes--Polymerization 5. Title: Graft copolymers I. Kolesnikov, G. S. II. Tazan, Khan-min III. ATS-13N49R IV. Title: Preparation... V. Associated Technical Services, Inc., East Orange, N. J.</p> <p style="text-align: center;">ATS/RJT-3013</p> <p>Office of Technical Services</p> |
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Zubov, V. P., Kabanov, V. A. and others.
THE INFLUENCE OF PRESSURE ON THE FORMA-
TION OF THE MICROSTRUCTURE OF POLYMER
CHAINS DURING POLYMERIZATION. [1961] Sp.
Order from ATS \$8.00 ATS-14N49R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1970, v. 2, no. 11, p. 1722-1727.

ATS/RJ-1616

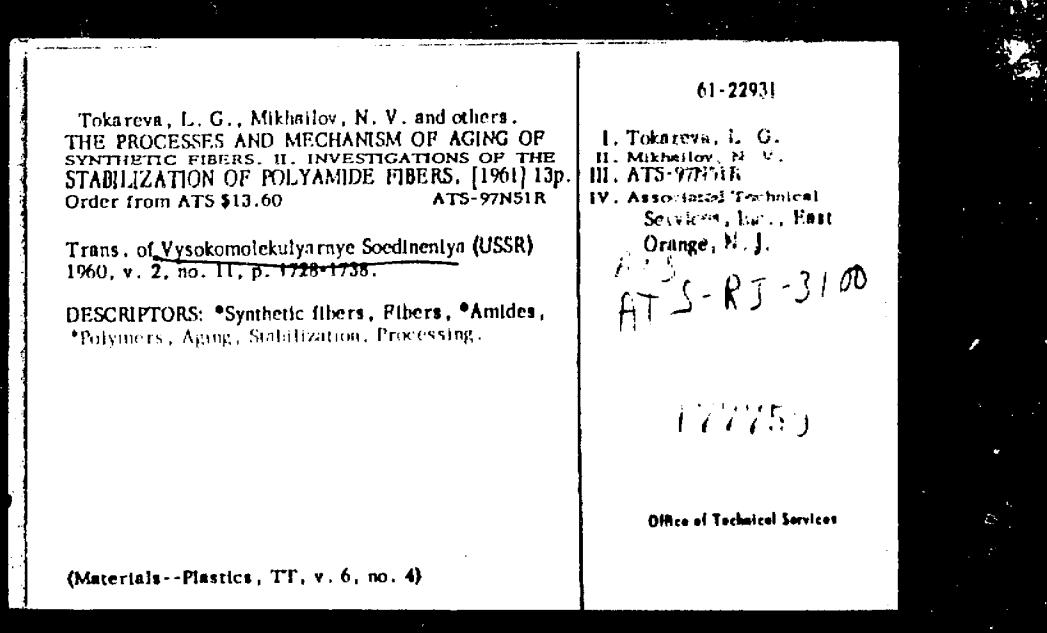
(Chemistry--Organic, TT, v. 5, no. 10)

61-22008

1. Polymer--Microstructure
2. Polymerization--
Physical factors
3. Pressure--Physical effects
- I. Zubov, V. P.
- II. Kabanov, V. A.
- III. ATS 14N49R
- IV. Associated Technical
Services, Inc., East
Orange, N. J.

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63-18412

Korotkov, A. A., Mitsengendler, S. P., and Aleev, K. M.
EFFECT OF DIETHYLETHER ON THE COPOLY-
MERIZATION PROCESS OF BUTADIENE WITH
STYRENE. [1963] 7p, 10 refs.
Order from OTS or SLA \$1.10 63-18412

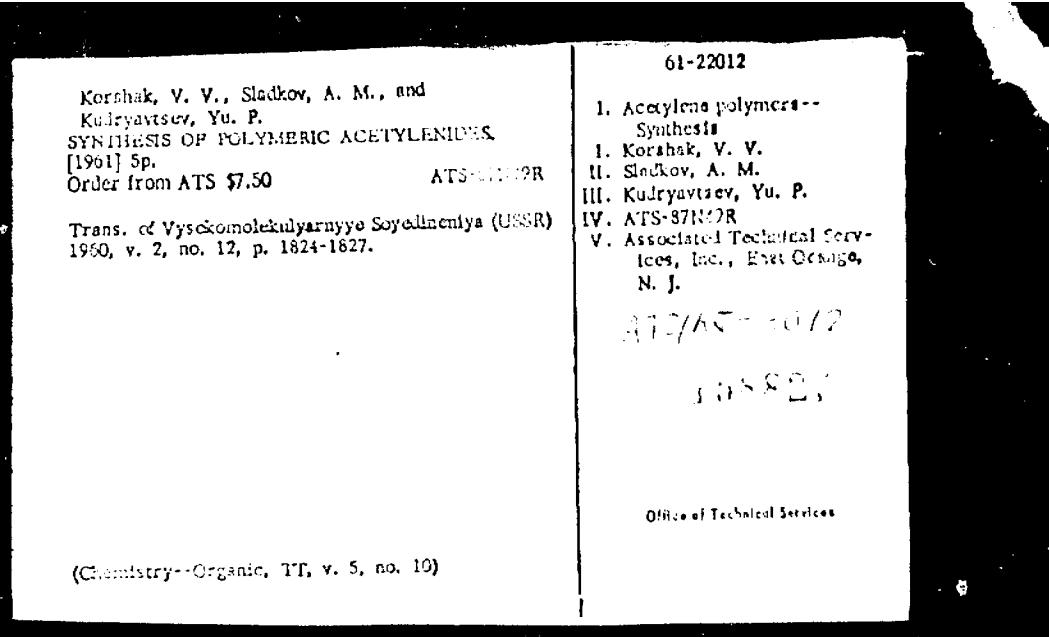
Trans. of Vysokomolekulyarnye Soedineniya (USSR),
1960, v. 2 [no. 12] p. 1811-1816.
Another trans. is available from PP in Polymer Science
USSR, v. 3, no. 3, \$100.00/year.

DESCRIPTORS: *Butadienes, *Styrenes, *Ethyl ethers,
Vinyl radicals, Copolymerization, Addition reactions,
Catalysts, *Lithium compounds, Butyl radicals,

The effect of diethyl ether on the polymerization kinetics of divinyl and styrene in benzene at 30 C and on the composition of the resultant polymers was investigated. Addition of 0.05 mole/l ether increases the content of styrene units in the copolymer from 13 (Materials--Plastics, TT, v. 10, no. 9) (over)

- I. Title: Diethyl ether
I. Korotkov, A. A.
II. Mitsengendler, S. P.
III. Aleev, K. M.

Office of Technical Services



62-13839

Gluzman, M. Kh., Dashevskaya, B. I., and
Bodnya, V. M.
PREPARATION OF POLYETHYLENE OXIDES BY
POLYMERIZATION OF ETHYLENE OXIDE. [1961]
[10]p. 20 refs.
Order from OTS or SLA \$1.10 62-13839

Trans. of Vysokomolekulavnye Soedineniya (USSR)
1960, v. 2 [no. 12] p. 1832-1838.

DESCRIPTORS: *Ethylene oxide, *Polymers,
Preparation, Polymerization, Catalysts.

Two methods of preparing polyethylene oxides were developed: by polymerization of ethylene oxide in an autoclave under pressure and by bubbling gaseous ethylene oxide through alkaline solutions of the glycol in apparatus of the column type. The composition of the polyethylene oxides and their properties are determined principally by the ethylene oxide : water and ethylene oxide : glycol ratios. The molar ratio of (Chemistry-Organic, TT, v. 7, no. 11) (over)

I. Gluzman, M. Kh.
II. Dashevskaya, B. I.
III. Bodnya, V. M.
IV. Translations, New York

Office of Technical Services

Tsen, Khan-min and Kolesnikov, G. S.
CARBON CHAIN POLYMERS AND COPOLYMERS,
XXIX. SYNTHESIS OF DIPHILIC GRAFT COPOLY-
MERS. [1961] 9[pp. 8 refs.
Order from OTS or SLA \$1.10]

62-13769

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 12] p. 1870-1874.

DESCRIPTORS: *Polymers, Synthesis, Copolymeriza-
tion, Esters, *Acrylic acids.

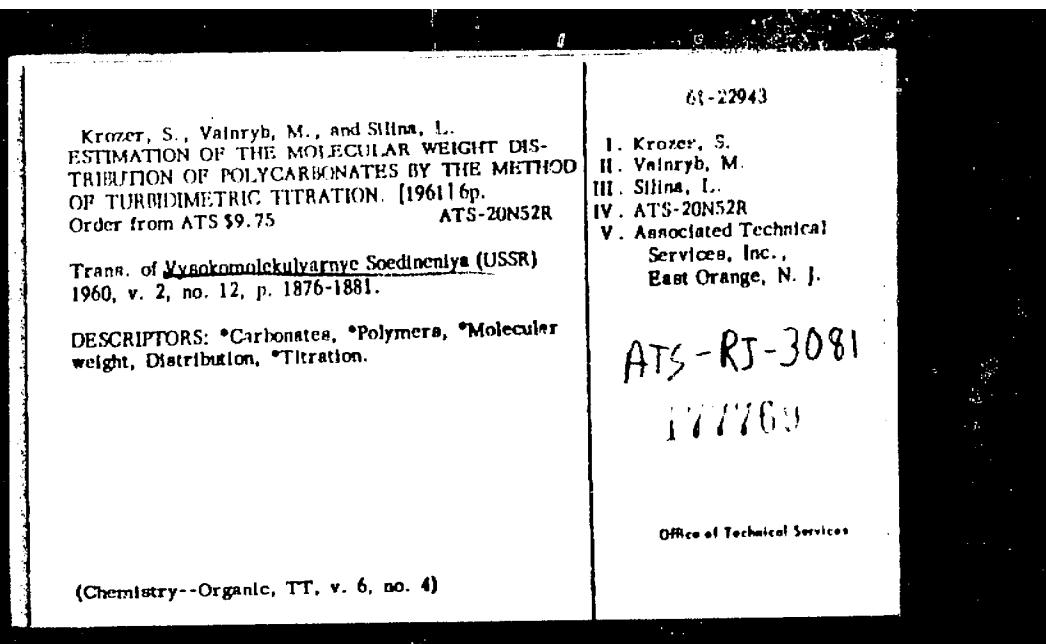
It has been shown that graft copolymers of the diphilic type may be produced by heating mixtures of methacrylic and α' -hydroxypelargonic acids or of methacrylic acid and the polyhydroxyphthalargonate in the presence of p-toluenesulfonic acid. The properties of the resultant graft copolymers have been investigated. It has been shown that spherulites are formed in the graft copolymers. (Author) (See also 60-18470
61-10705, 61-20645)

62-13769

I. Title: Graft polymers
I. Tsen, Khan-min
II. Kolesnikov, G. S.
III. Title: Synthesis ...
IV. Translations, New York

(Chemistry - Organic, Tf., v. 2, no. 11)

Office of Technical Services



Investigation of Diffusion Processes in
Some Polymers IV. Reversible Changes in
Diffusion Characteristics Under Irradiation,
by N.S. Tikhomirova, Yu.M. Malinskii
RUSSIAN, per. Vysokomolekulyarnye Soedineniya
Vol 2, 1960, pp 1349-1359. 9232591
AEC UCRL-Tr-10009

Sci/Chemistry
May 66

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Mel'nikova, E. P., Vansheldt, A. A. and others.
THE REACTION OF METALLIC SODIUM WITH
BIS(CHLOROMETHYL) DERIVATIVES OF AROMATIC
HYDROCARBONS. Pt. 1 of The Use of the Wurtz Re-
action for the Synthesis of Polymers of the Polyxylylene
Type. [1961] 8p.
Order from ATS \$15.15

ATS-42N57R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 9, p. 1383-1390.

DESCRIPTORS: *Chemical reactions, *Sodium, *Chlo-
rides, Methyl radicals, Synthesis, Polymers.

(Chemistry--Organic, TT, v. 7, no. 10)

62-12654

I. Mel'nikova, E. P.
II. Vansheldt, A. A.
III. Title: Use ...
IV. ATS-42N57R
V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3070

Office of Technical Services

Lanovakaya, L. M., Gantmakher, A. R., and
Medvedev, S. S.
POLYMERIZATION OF ETHYLENE BY THE COM-
PLEX α -TiCl₃-AlR₃ CATALYST IN THE PRESENCE
OF VARIOUS MONOMERS. I. THE INFLUENCE OF
VARIOUS MONOMERS ON THE POLYMERIZATION
OF ETHYLENE. [1960] 8p.
Order from ATS \$12. 95

ATS-77M46R

Trans. of Vysokomolekularnye Soyedineniya (USSR)
1960, v. 2, no. 9, p. 1391-1397.

HIS-PJ-2664
147,026

61-12372

1. Ethylenes--Polymerization
 2. Complex compounds--
Catalytic properties
 3. Aluminum compounds
(Organic)--Catalytic
properties
 4. Titanium compounds
(Organic)--Catalytic
properties
- I. Lanovakaya, L. M.
 - II. Gantmakher, A. R.
 - III. Medvedev, S. S.
 - IV. ATS-77M46R
 - V. Associated Technical
Services, Inc., East
Orange, N. J.
 - VI. Title: Influence...

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(Chemistry--Organic, TT, v. 5, no. 5)

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| <p>Arbuzova, H. A., Kostikov, R. R., and Prepp, L. N. POLYMERIZATION OF DIVINYLBENZAL. [1961] [5]p. 5 refs. Order from OTS or SLA \$1.10 62-13908 Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1960, v. 2 [no. 9] p. 1402-1404 DESCRIPTORS: *Polymerization, Acid, Benzenes, Catalysts, *Vinyl radicals. Polymerization in the presence of initiators of the radical type yielded a linear polymer of divinylbenzal, whose physical properties and analytical data indicated that it had a cyclic structure.</p> | <p>62-13908 I. Arbuzova, H. A. II. Kostikov, R. R. III. Prepp, L. N. IV. Translations, New York</p> |
| (Chemistry-Organic, TT, v. 7, no. 11) | Office of Technical Services |

Shiyapolikov, Yu. A., Miller, V. B. and others.
A STUDY OF THE COMPARATIVE EFFECTIVENESS
OF SOME ANTOXIDANTS. Pt. 3 of the Thermo-
Oxidative Degradation of Polypropylene. [1962] 4p.
Order from ATS \$5.25 ATS-81N52R

Trans. of Vyssokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 9, p. 1409-1412.

DESCRIPTORS: Propene, *Antioxidants, Effectiveness,
Polymers, Heat

62-12788

I. Shiyapolikov, Yu. A.
II. Miller, V. B.
III. Title: Thermo-Oxidative...
IV. ATS-81N52R
V. Associated Technical
Services, Inc.,
West Orange, N. J.

(Chemistry--Organic, TT, v. 7, no. 11)

Office of Technical Services

Kolenikov, G. S., Rodionova, E. P. and others.
CARBON-CHAIN POLYMERS AND COPOLYMERS.
XXVII. THE POLYMERIZATION AND COPOLYMERI-
ZATION OF THE DI-N-BUTYL ESTER OF VINYL-
PHOSPHINIC ACID. [1961] [8] p. 7 refs.
Order from OTS or SLA \$1.10

61-20643

61-20643
I. Kolenikov, G. S.
II. Rodionova, E. P.
III. Title: Polymerization ...

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, [no. 9] p. 1432-1437.

DESCRIPTORS: Polymerization, *Copolymerization,
Condensation reactions, Polymers, Cyclic compounds,
Chlorine compounds, *Phosphinic acids, *Styrenes,
*Vinyl radicals, *Chlorides, *Acetates, Thermo-
chemistry, Mechanical properties, Esters, Butyl
radicals.

The polymerization of the di-n-butyl ester of vinyl-
phosphinic acid was studied under different conditions.
(Chemistry--Organic, TT, v. 7, no. 5) (over)

Office of Technical Services

AT&T - RT-3074

Determination of the Structural Glass
Transition Temperature From Experimental
Curves, by Yu. A. Gorbatkina. 6p
RUSSIAN, per, Vysokomolekuljarnye Soedineniya,
Vol 2, No 10, 1960, pp 1456-1458.
SLA TT-66-10656

Sci-M&M
Jul 66

306,108